

## MISTAKEN IDENTITY IN ANNUAL *ERAGROSTIS* (GRAMINEAE)

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The large number of incorrectly identified specimens of annual *Eragrostis* in herbaria attest to the fact that this group has been a persistent source of taxonomic difficulty. Recent studies, however, particularly those of Koch (1974, 1985), have added greatly to our understanding of several of these puzzling species.

Examination of old vouchers on which certain state records were based has revealed several cases of mistaken identity. As a result, it is now evident that *Eragrostis barrelieri* should be added, and *E. minor* deleted for Wyoming; neither *E. minor* nor *E. frankii* appears to occur in Arizona. I am grateful to the curators at ASC, ASU, and RM for the loan of specimens.

### WYOMING

Porter (1964) includes *Eragrostis poaeoides* P. Beauv. ex Roem. & Schult. (= *E. minor* Host) as part of the grass flora of Wyoming. His note indicates a single collection from the University campus at Laramie. This record is clearly based on the following: Albany Co., Laramie, Univ. of Wyoming campus, 7200 ft, weed in dry soil, waste ground, 23 Aug 1957, C. L. Porter 7430 (ARIZ, RM). The RM specimen apparently served also as the basis for the inclusion of *E. poaeoides* by Beetle & May (1971).

The above collection, in fact, represents *Eragrostis barrelieri* Daveau, a species not previously reported from the State. Two additional gatherings of this latter species from Wyoming are at RM, both are from Laramie: N 7th St. between Lewis and Bradley, weed in garden, 1 Oct 1975, B. E. Nelson & L. Nelson 1440 [determined as *Eragrostis minor* Host]; Parking lot corner of 11th St. and Grand Avenue, 7 Aug 1982, G. P. Hallsten 360 [determined as *E. pectinacea* (Michx.) Nees].

Porter's 1957 collection was apparently the first from Wyoming of this introduced European weed. It was almost two decades before it was collected again, and today seems to be known in the State by only three gatherings, all from within the city limits of Laramie. The first two collections were determined as *Eragrostis minor* (syn. = *E. poaeoides*); the most recent specimen was also misidentified, but as *E. pectinacea*, another weedy species represented at RM by several collections from the southeastern part of Wyoming.

Hitchcock (1951) gives the U.S. range for *Eragrostis barrelieri* as "Colorado and Kansas to Texas and California." The species is not listed by Cronquist, et al (1977).

Difficulties in determining *Eragrostis barrelieri* and its confusion with *E. minor* are understandable. The key in Hitchcock's Manual is quite confusing in that it indicates that in *E. barrelieri* the plants are not glandular on the branches nor lemmas, and

that the panicles are narrow. Harvey (1975), in contrast, states correctly that the panicle is open and that the branches frequently have glandular spots or rings. In my experience, the most consistent character which serves to distinguish *E. barrelieri* from its closest allies is the presence of glandular areas or rings on the rachis below the branches. These seem always to be present, and are often large, shining, and quite conspicuous. Frequently they are yellowish.

Regarding *Eragrostis minor* in Wyoming, as indicated above, the Porter and Nelson collections so-named actually represent *E. barrelieri*. A third collection from Wyoming at RM originally determined as *E. minor* (Goshen Co., T26N, R64W, SW29, sandy road bed, 4266 ft, 9 July 1982, Hallsten, Skinner, & Beetle 122) is, in reality, a small plant of *E. cilianensis* (All.) Vign.-Lutati ex Janchen, a not uncommon weed in Wyoming. Many of the lemmas on the above specimen have prominent glands on their keels. In *E. minor* glands are mostly on panicle branches and pedicels, but may also occur on margins of blade and keel of sheath. Glands are normally rare (or absent) on the lemmas. Since all collections from Wyoming determined as *E. minor* prove to be misidentifications, the name of this species should be omitted from any list of grass taxa occurring in the state.

#### ARIZONA

Two cases of mistaken identity involving annual *Eragrostis* taxa have come to my attention recently. One is the report of *E. poaeoides* P. Beauv. ex Roem. & Schult. (= *E. minor* Host) by Pinkava, et al. (1970). One collection is cited: Navajo Co., 4 miles E of Heber, 12 Oct 1963, E. Lehto & D. Keil 3534. I have examined the ASU specimens of this collection, and a duplicate at ARIZ, and the plants are clearly *E. mexicana* (Hornem.) Link. Although this species and *E. minor* are similar in many respects, the caryopses are quite different. The grain of *E. mexicana* is blunt at the apex, somewhat cubical in shape, and bears a well defined groove on the side opposite the embryo. In *E. minor* in contrast, the caryopsis is rounded at the apex, the general shape is ellipsoidal, and there is no longitudinal groove.

Curiously, although *Eragrostis minor* is not listed as part of the Arizona grass flora by Harvey (1951), a specimen at ARIZ (*G. M. Davis* s.n. S.C.S. 4555, collected in 1936 near Prescott, Yavapai Co.) bears an annotation by Harvey as *E. poaeoides*, and the date 12/IV/40. The specimen is somewhat immature and does not have mature caryopses, but it appears to represent *E. mexicana*. Another specimen at ARIZ labeled *E. poaeoides* (*Hardies* 967, collected in 1936 in Oak Creek Canyon) is clearly *E. mexicana*. The grains are mature and have the characteristic shape and distinctive groove.

*Eragrostis frankii* C. A. Meyer was reported from Arizona by Rominger, et al. (1984). The specimen cited is: Yavapai Co., SE $\frac{1}{4}$  Sec. 27, T16N, R4E, Cornville Quad., ca. 3400 [ft], C. Jeffers s.n., Aug 1979. (DHA 39486). [The international acronym for the Deaver

Herbarium at Flagstaff is ASC, not DHA! see Index Herbariorum.]. We have received on loan from ASC two specimens of the above collection. Both are very immature, the panicles only partially emerged from the upper sheath, but they seem clearly to represent *E. cilianensis* (All.) Vign.-Lutati ex Janchen. Even though immature, the specimens are some 30 cm tall and rather coarse. Some of the glumes and lemmas bear on their keels prominent circular glands characteristic of *E. cilianensis*.

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